



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: A8700

Lawrence SHAH, et al.

Appln. No.: 10/813,269

Group Art Unit: 2828

Confirmation No.: 5356

Examiner: Dung T. NGUYEN

Filed: March 31, 2004

For: FEMTOSECOND LASER PROCESSING SYSTEM WITH PROCESS PARAMETERS
CONTROLS AND FEEDBACK

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.97 and 1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicants hereby notify the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith, except for the following: U.S. patents and/or U.S. patent publications; and co-pending non-provisional U.S. applications filed after June 30, 2003.

The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action on the merits (whichever is later); or (3) Before the mailing date of the first Office Action after

INFORMATION DISCLOSURE STATEMENT
U.S. Appln. No.: 10/813,269

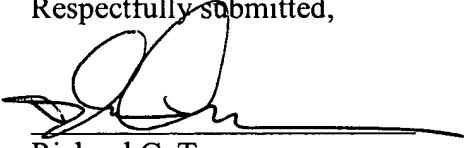
A8700

filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicants do not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,



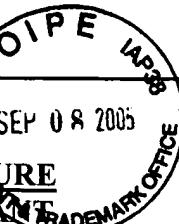
Richard C. Turner
Registration No. 29,710

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: September 8, 2005

Substitute for Form 1449 A & B/PTO				Complete if Known	
				Application Number	10/813,269
				Confirmation Number	5356
				Filing Date	March 31, 2004
				First Named Inventor	Lawrence SHAH
				Art Unit	2828
				Examiner Name	Dung T. NGUYEN
Sheet	1	of	4	Attorney Docket Number	A8700



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code ² (if known)		
		US RE37,585	E	03/19/2002	Gerard Mourou
		US 6,333,485	B1	12/25/2001	Richard Alan Haight
		US 6,268,586	B1	07/31/2001	Brent C. Stuart
		US 5,720,894		02/24/1998	Joseph Neev
		US 6,552,301	B2	04/22/2003	Peter R. Herman
		US 6,574,250	B2	06/03/2003	Yunlong Sun
		US 6,421,573	B1	07/16/2002	James D. Kafka
		US 6,285,002	B1	09/04/2001	Bryan Kok Ann Ngoi
		US 2002/0023903		02/28/2002	Bryan Kok Ann Ngoi
		US 6,341,009	B1	01/22/2002	John O'Connor
		US 6,146,375		11/14/2000	Tibor Juhasz
		US 2002/0193704	A1	12/19/2002	Peter Goldstein
		US 6,414,320	B1	07/2/2002	Muriel Y. Ishikawa
		US 5,978,538		11/2/1999	Kiyotaka Miura
		US 2002/0076655	A1	06/20/2002	Nicholas F. Borrelli
		US 2003/0099452	A1	05/29/2003	Nicholas F. Borrelli
		US 2003/0035640	A1	02/20/2003	Mark Dugan
		US 6,573,026	B1	06/3/2003	Bruce G. Aitken
		US 2003/0110810	A1	06/19/2003	Douglas Scott Dunn
		US 6,392,683	B1	05/21/2002	Kenichi Hayashi
		US 6,407,361		06/18/2002	Mark S. Williams

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation ⁶
		Country Code ³	Number ⁴			

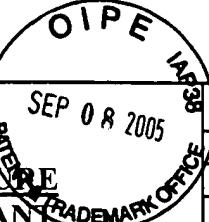
NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.			Translation ⁶
		Tae Y. Choi, "Ultra-fast laser-induce processing of materials: fundamentals and applications in micromaching." SPIE Proceedings Vol 4637 (2002) pp. 204-211			
		Ihtesham H. Chowdhury, "Ultrafast pulse train micromaching," Spie Proceedings Vol 4978 (2003) pp. 138-146			
		Santiago Camacho-Lopez, "Single-pulse and 'pulsetrain-burst' (>100MHz) effects in ultrafast laser processing of metals, glasses, and bio-tissues" OSA CLEO 2003 in Baltimore, MD (May) Paper CFF2			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to indicate here if English language Translation is attached.

Substitute for Form 1449 A & B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/813,269
				Confirmation Number	5356
				Filing Date	March 31, 2004
				First Named Inventor	Lawrence SHAH
				Art Unit	2828
				Examiner Name	Dung T. NGUYEN
Sheet 2		of 4	Attorney Docket Number A8700		



U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code ² (if known)		
		US 6,312,768		11/6/2001	Andrei Rode
		US 6,372,103	B1	4/16/2002	Michael D. Perry
		US			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation ⁶
		Country Code ³	Number ⁴			

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.				Translation ⁶
		Craig W. Siders, "Burst-mode femtosecond ablation in Copper and Lexan" OSA CLEO 2003 in Baltimore, MD (May) paper CFF3				
		L. Sudrie, "Writing of permanent birefringement microlayers in bulk fused silica with femtosecond laser pulses" Optics Communications 171 (1999) 279-284				
		Roberto Osellame, "Femtosecond writing of active optical waveguides with astigmatically shaped beams" J. Opt. Soc. Am. B Vol. 20 No 7/ July 2003 p 1559-1567				
		John D. Mills, "Embedded anisotropic microreflectors by femtosecond-laser nanomachining" Applied Physics Letters Vol. 81, No. 2 July 2002, p196-198				
		A. Bado, "Manufacturing of High quality Integrated Optical Components by Laser Direct-Write (M103) ICALEO 2003 in Jacksonville, FL. Laser Microfabrication, LMF Section C p 18-26				
		L. Sudrie, "Study of damage in fused silica induced by ultra-short IR laser pulses" Optics Communications 191 (2001) 333-339				
		P. G. Kazansky, "Self-organized form birefringence in glass irradiated by intense ultrashort light pulses" OSA CLEO 2003 in Baltimore, MD (May) paper CWI1				
		Henry Haefke, "Microtexturing of functional surfaces for improving their tribological performance" Proceeding of the International Tribology Conference, Nagasaki, 2000 p 217-221				
		H.K. Tonshoff, "Structuring silicon with femtosecond lasers," SPIE Proceedings Vol. 4274 (2001) p 88-97				
		J.Bonse, "Femtosecond laser ablation of silicon-modification thresholds and morphology," Applied Physics A 74, 19-25, (2002)				
		Jurgen Reif, "Ripples revisited: non-classical morphology at the bottom of femtosecond laser ablation craters in transparent dielectrics," Applied Surface Science 197-198 (2002) 891-895				

Examiner Signature		Date Considered
--------------------	--	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to indicate here if English language Translation is attached.

Substitute for Form 1449 A & B/PTO				Complete if Known	
				Application Number	10/813,269
				Confirmation Number	5356
				Filing Date	March 31, 2004
				First Named Inventor	Lawrence SHAH
				Art Unit	2828
				Examiner Name	Dung T. NGUYEN
Sheet		3	of	4	Attorney Docket Number
A8700					



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code ² (if known)		
	US				

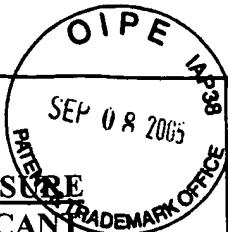
FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation ⁶
		Country Code ³	Number ⁴			

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.				Translation ⁶
		Egidijus Vanagas, "Surface nanostructuring of borosilicate glass by femtosecond nJ energy pulses," Applied Physics Letters Vol.82, No. 17, 28 April 2003, p.2901-2903				
		R.S. Taylor, "Femtosecond Laser Fabricated Nanostructures in Silica Glass," OSA CLEO 2003 in Baltimore, MD (May). Paper CWA18				
		R.S. Taylor, "Ultra-High Resolution Index of Refraction Profiles of Femtosecond Laser Modified Silica Structures," OSA CLEO 2003 in Baltimore, MD (May). Paper CWI3				
		David Ashkenasi, "Processing of multi-layer systems using femtosecond, picosecond, and nanosecond laser pulses at different wavelengths," SPIE Proceedings Vol. 4637 (2002) p169-179				
		Alexei K. Zaitsev, "New low temperature femto-second laser annealing method for TFT fabrication technology," OSA CLEO 2003 in Baltimore, MD (May). Paper CThM34				
		Ian Jones, "Laser Welding of Plastics-Process Selection Software (601) ICALEO 2003 in Jacksonville, FL. Laser Materials Processing LMP Section A p 76-84				
		Ian Jones, "Laser Welding of Plastics-Process Selection Software (601) ICALEO 2003 in Jacksonville, FL. Laser Materials Processing LMP Section A p 76-84				
		Nicole M. Woosman, "A Study of the Effect of Weld Parameters on Strengths of Clearwelede Thermoplastics (602) ICALEO 2003 in Jacksonville, FL. Laser Materials Processing, LMP Section A p 85-93				
		Kulik et al, <i>Short and ultrashort laser pulses: an upcoming tool for processing optical and semiconductor materials</i> , Proc. SPIE Int. Soc. Opt. Eng. 5339, 35 (2004)				
		Said et al, <i>Manufacturing by laser direct-write of three-dimensional devices containing optical and microfluidic networks</i> , Bado, Said, Dugan, Translume, Proc. SPIE Int. Soc. Opt. Eng. 5339, 194 (2004)				
		Ostendorf et al, <i>Ablation of metals and semiconductors with ultrashort pulsed lasers: improving surface qualities of microcuts and grooves</i> , Proc. SPIE Int. Soc. Opt. Eng. 5340, 153 (2004)				
		Watanabe et al, <i>Fabrication of photonic devices with femtosecond laser pulses</i> , Proc. SPIE Int. Soc. Opt. Eng. 5340, 119 (2004)				
		Femtosecond laser machining of integrated capillaries in microfluidic devices, Tyson N. Kim Photonics West Poster Session 5340-31 Only, no paper submitted				

Examiner Signature		Date Considered
--------------------	--	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or follow the hyperlink from the title of the document to the intranet. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to indicate here if English language Translation is attached.



Substitute for Form 1449 A & B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

4

of

4

<i>Complete if Known</i>	
Application Number	10/813,269
Confirmation Number	5356
Filing Date	March 31, 2004
First Named Inventor	Lawrence SHAH
Art Unit	2828
Examiner Name	Dung T. NGUYEN
Attorney Docket Number	A8700

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation ⁶
		A. Ostendorf et al, "Abalation of metals and semiconductors with ultrashort-pulsed lasers: improving surface qualities of microcuts and grooves", Proc., SPIE vol 5340 (2004) pp. 153-163	
		W. Watanabe et al, "Fabrication of photonic devices with femtosecond laser pulses", Proc SPIE, vol 5340 (2004) pp. 119-126	
		A. Said et al, "Manufacturing by laser direct-write of three-dimensional devices containing optical and microfluidic networks", Proc SPIE vol. 5339 (2004) pp. 194-204	
		C. Kulik, "Short and Ultrashor t Laser Pulses: An upcoming Tool for Processing Optical and Semiconductor Materials", Proc. SPIE vol. 5339 (2004) pp. 35-48	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or follow the hyperlink from the title of the document to the intranet. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to indicate here if English language Translation is attached.